Claims

1. Method for at least partially transmitting message cells
(cell(vcl), cell(vc2)) to be transmitted in a first communication
5   network (ACCESS) via a second packet-oriented communication network
(EN), whereby in the first communication network (ACCESS) there are
several priorities (CBR, VBR...UBR) that can be assigned
respectively to the message cells (cell(vcl), cell(vc2)) to be
transmitted, whereby the message cells (cell(vcl), cell(vc2)) are
10   transmitted via the first communication network (ACCESS) in
accordance with the respective priorities assigned (CBR, VBR...UBR),
characterized in that
- at least one of the message cells (cell(vcl), cell(vc2)) to be
    transmitted and comprising the same assigned priority (CBR,
15   VBR...UBR) is added to a user data field (nf) of at least one data
    packet (dp) of the second packet-oriented communication network
    (EN),
- a transmission priority (user_priority) derived from the priority
    (CBR, VBR...UBR) of the at least one added message cell
20   (cell(vcl), cell(vc2)) is assigned to the at least one data packet
    (EN), whereby the at least one data packet (dp) is at least
    partially transmitted together with the at least one added message
    cell (cell(vcl), cell(vc2)) according to the assigned transmission
    priority (user_priority) to/via the second packet-oriented
25   communication network (EN).

2. Method according to Claim 1,
characterized in that
insert functions (CBR_FA, rt-VBR_FA, nrt-VBR_FA, UBR/UBR+_FA) are
30   provided in the first and/or second communication network (ACCESS,
EN), by means of which functions, for each priority (CBR, VBR...UBR)
provided in the first communication network respectively
- the at least one data packet (dp) comprising the correspondingly
    derived transmission priority (user_priority) is formed,
35   - the at least one message cell (cell(vcl), cell(vc2)) comprising
    the corresponding priority (CBR,VBR...UBR) is added to the user
    data field (nf) of the at least one formed data packet (dp), and

- the at least one data packet (dp) is at least partially
  transmitted to/via the second communication network (EN).

3. Method according to Claim 1 or 2,
5   **characterized in that**
the message cells (cell(vcl), cell(vc2)) to be transmitted via the
first communication network (ACCESS) are transmitted within the
framework of virtual connections (vcl,2) set up over the first
communication network (ACCESS), whereby the respective assigned
10   priority (CBR, VBR...UBR) of the respective message cells
(cell(vcl), cell(vc2)) transmitted via one of the virtual
connections (vcl,2) represents a connection-particular priority.

4. Method according to Claim 3,
15   **characterized in that**
at least one further connection-particular transmission parameter in
addition to the connection-particular priority (CBR, VBR...UBR) is
assigned to the respective message cells (cell(vcl), cell(vc2))
transmitted via one of the virtual connections (vcl,2) of the first
20   communication network (ACCESS).

5. Method according to Claim 4,
characterized in that
the insert functions (CBR_EA, rt-VBR_FA, nrt-VBR_FA, UBR/UBR+_FA)
25   are designed in such a way that the at least one message cell
(cell(vcl), cell(vc2)) to be transmitted and comprising the same
assigned priority is added to the user data field (nf) of the
respective at least one data packet (dp) and the at least one data
packet (dp) is at least partially forwarded to/via the packet-
30   oriented communication network (EN) according to the at least one
further connection-particular transmission parameter of the
respective at least one message cell (cell(vcl), cell(vc2)) added to
the user data field (nf).

35   6. Method according to one of the previous claims,
characterized in that
the first communication network (ACCESS) is designed in accordance

with the asynchronous transfer mode,

in that by means of the priorities (CBR, VBR...UBR) provided in the
first communication network (ACCESS) respectively

- a traffic type defined in accordance with the ATM forum and ITU-T

5   is represented, or

- a specific ATM service class is represented.

7. Method according to Claim 6,
characterized in that

10   a "Cell Delay Variation Tolerance" specified as part of an
established ATM connection is represented by the at least one
further assigned connection-particular transmission parameter.

8. Method according to Claim 7,

15   **characterized in that**
the insert functions (CBR_FA, rt-VBR_FA, nrt-VBR_FÄ, UBR/UBR+_FA)
are designed in such a way that the at least one message cell
(cell(vc1), cell(vc2)) to be transmitted and comprising the same
assigned priority is added to the user data field (nf) of the

20   respective at least one data packet (dp) and the at least one data
packet (dp) is at least partially forwarded to/via the packet-
oriented communication network (EN) according to the lowest
specified "Cell Delay Variation Tolerance" value of the respective
at least one message cell (cell(vc1), cell(vc2)) added to the user

25   data field (nf).

9. Method according to one of the previous Claims,
characterized in that
the second packet-oriented communication network (EN) and the data

30   packets (dp) transmitted therein are designed in accordance with the
IEEE standard 802.3.

10. Method according to Claim 9,
characterized in that

35   the data packets transmitted via the second packet-oriented
communication network (EN) are designed in accordance with the IEEE
standard 802.1Q-1998, whereby the transmission priority allocated to

the respective at least one data packet transmitted via the second
communication network (EN) is determined by the "user_priority"
information in the "Tag Control Information" data field (TCI) of the
"Ethernet-encoded tag header" (ETPID).

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11. Method according to one of the previous Claims,
characterized in that
information representing the number (n) of the respective message
cells (cell(vc1), cell(vc2)) added to the user data field (nf) of
10 the at least one data packet (dp) is added to the data packet (dp).

12. Method according to one of the previous Claims,
characterized in that
the respective destination information (DA) is added to the at least
15 one data packet (dp),
the at least one data packet (dp) and the at least one added message
cell (cell(vc1), cell(vc2)) therein are transmitted to at least one
destination ZE, represented by the destination information (DA) of
the data packet (dp), in the second packet-oriented communication
20 network (EN).

13. Method according to Claim 12,
characterized in that
the message cells (cell(vc1), cell(vc2)) transmitted to the at least
25 one destination (ZE) arranged in the second packet-oriented
communication network (EN) are forwarded according to routing
information (VPI/VCI) contained in the respective message cells.

14. Method according to Claim 12,
30 **characterized in that**
user information contained in the at least one message cell
(cell(vc1), cell(vc2)) transmitted to the at least one destination
(ZE) arranged in the second packet-oriented communication network
(EN) is forwarded according to routing information (VPI/VCI)
·35 contained in the respective message cells.

15. Communication arrangement to at least partially transmit message

cells (cell(vc1), cell(vc2)) to be transmitted in a first
communication network (ACCESS) via a second packet-oriented
communication network (EN), whereby

- in the first communication network (ACCESS) several priorities
5   (CBR, VBR...UBR) are provided that can be assigned respectively to
the message cells (cell(vc1), cell(vc2)) to be transmitted,

- the message cells (cell(vc1), cell(vc2)) are transmitted via the
first communication network (ACCESS) according to the respective
priorities assigned (CBR, VBR...UBR),

10   **characterized in that**
insert tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA, UBR/UBR+_FA) are
provided in the first and/or second communication network (ACCESS,
EN), by means of which tools at least one of the message cells
(cell(vc1), cell(vc2)) to be transmitted and comprising the same
15   assigned priority (CBR, VBR...UBR) are added to a user data field
(nf) of at least one data packet (dp) of the second packet-oriented
communication network (EN), and

- further assign tools are allocated to the insert tools (CBR_FA,
rt-VBR_FA, nrt-VBR_FA, UBR/UBR+_FA), by means of which assign
20   tools a transmission priority (user_priority) derived from the
priority (CBR, VBR...UBR) of the at least one added message cell
(cell(vc1), cell(vc2)) is assigned to the at least one data packet
(dp),

- the insert and assign tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA,
25   UBR/UBR+_FA) are designed in such a way that the at least one data
packet (dp) is at least partially transmitted together with the at
least one added message cell (cell(vc1), cell(vc2)) according to
the assigned transmission priority (user_priority) to/via the
second packet-oriented communication network (EN).

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16. Communication arrangement according to Claim 15,
characterized in that
the insert and assign tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA,
UBR/UBR+_FA) are designed in such a way that for each priority (CBR,
35   VBR...UBR) provided in the first communication network (ACCESS)
respectively

- the at least one data packet (dp) comprising the correspondingly

derived transmission priority (user_priority) is formed,
- the at least one message cell (cell(vcl), cell(vc2)) comprising
   the corresponding priority (CBR,VBR...UBR) is added to the user
   data field (nf) of the at least one formed data packet (dp), and
5 - the at least one data packet (dp) is at least partially
   transmitted to/via the second communication network (EN).

17. Communication arrangement according to Claim 15 or 16,
characterized in that
10 the insert tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA, UBR/UBR+_FA) are
   designed in such a way that the at least one message cell
   (cell(vcl), cell(vc2)) to be transmitted and comprising the same
   assigned priority (CBR, VBR...UBR) is added to the user data field
   (nf) of the respective at least one data packet (dp) and the at
15 least one data packet (dp) is at least partially forwarded to/via
   the packet-oriented communication network (EN) according to the at
   least one further connection-particular transmission parameter
   assigned to the respective at least one message cell (cell(vcl),
   cell(vc2)) added to the user data field (nf)

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18. Communication device(DSLAM), which can be arranged in a first
   cell-oriented communication network (ACCESS), and whose purpose is
   to at least partially transmit message cells (cell(vcl), cell(vc2))
   to be transmitted in the first communication network (ACCESS) via a
25 second packet-oriented communication network (EN) arranged in the
   communication device (DSLAM) whereby
   - in the first communication network (ACCESS) several priorities
      (CBR, VBR...UBR) are provided that can be assigned respectively to
      the message cells (cell(vcl), cell(vc2)) to be transmitted,
30 - the message cells (cell(vcl), cell(vc2)) are transmitted via the
      first communication network (ACCESS) according to the respective
      priorities assigned (CBR, VBR...UBR),
   characterized in that
   - insert tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA, UBR/UBR+_FA) are
35   provided in the communication device (DSLAM), by means of which
      tools at least one of the message cells (cell(vcl), cell(vc2)) to
      be transmitted and comprising the same assigned priority (CBR,

VBR...UBR) are added to a user data field (nf) of at least one
data packet (dp) of the second packet-oriented communication
network (EN), and

- further assign tools assigned to the insert tools (CBR_FA, rt-

5   VBR_FA, nrt-VBR_FA, UBR/UBR+__FA) are arranged in the
communication device (DSLAM), by means of which assign tools a
transmission priority (user_priority) derived from the priority
(CBR, VBR...UBR) of the at least one added message cell
(cell(vcl), cell(vc2)) is assigned to the at least one data packet

10   (dp),

- the insert and assign tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA,
UBR/UBR+_FA) are designed in such a way that the at least one data
packet (dp) is at least partially transmitted together with the at
least one added message cell (cell(vcl), cell(vc2)) according to

15   the assigned transmission priority (user_priority) to/via the
second packet-oriented communication network (EN).

19. Communication device according to Claim 18,
characterized in that

20   the insert and assign tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA,
UBR/UBR+_FA) are designed in such a way that for each priority (CBR,
VBR...UBR) provided in the first communication network (ACCESS)
respectively

- the at least one data packet (dp) comprising the correspondingly

25   derived transmission priority (user_priority) is formed,

- the at least one message cell (cell(vcl), cell(vc2)) comprising
the corresponding priority (CBR,VBR...UBR) is added to the user
data field (nf) of the at least one formed data packet (dp), and

- at least one data packet (dp) is at least partially transmitted

30   to/via the second communication network (EN).

20. Communication device according to Claim 18 or 19,
characterized in that
the insert and assign tools (CBR_FA, rt-VBR_FA, nrt-VBR_FA,

35   UBR/UBR+_FA) are arranged respectively on at least one connection
unit (AE1...z) arranged in the communication device (DSLAM) and
connected to the first and second communication network (ACCESS, EN)

and/or on at least one central unit (ZE) centrally arranged in the communication device and connected to the first and second communication network (ACCESS, EN).